

REMARKS / ARGUMENTS

Claims 1-18 remain pending this application. Claims 1, 8, 13 and 18 have been amended. New claims 19 and 20 have been added.

In the Office Action, the Examiner has rejected claims 1-18 under 35 U.S.C. 103(a) as being unpatentable over Li (5,992,850) in view of Harbaugh (U.S. patent No. 6,422,560), Miller (U.S. patent No. 4,437,667), Paulos (U.S. patent No. 4,407,502) or the article entitled "Puzzles: Old & New: How to Make and Solve Them" by Slocum, Jerry et al. (Puzzles).

The Examiner has also rejected claims 1-18 under the judicially created doctrine of obvious-type double patenting as being unpatentable over Sugden (U.S. patent No. D495,378) in view of Li.

In response, we have amended claim 1 to better define the invention, and to more clearly distinguish the claimed invention over the prior art.

Claim 1 has been amended to insert therein a limitation previously found in Claim 1, and to include language that makes it clear that the decorative pattern is formed from the at least two colours. As amended, claim 1 defines a manipulable puzzle cube having a combination of two key features. The first feature is that all portions of each of the cubic elements are formed from a material having a selected colour, whereby all of the exposed faces of a given cubic element are the same colour, the colour of each cubic element being selected from a group of colours comprising at least two colors. The second feature is that the colours of the cubic elements are selected so that the cubic elements form a decorative pattern on each surface of the cube, when the cube is in an undisturbed state, the decorative pattern being formed by the at least two different colours.

Support for the amendments to claim 1 regarding the first feature can be found in paragraph 31 and paragraph 35 of the disclosure, and Figures 5, 6 and 7. Paragraph 31 states that "all portions of the cubic elements of puzzle cube 10 are preferably the same colour." It is apparent from the Figures 5-7 that the subject cubic elements may be integrally formed from a material of a particular colour, in which the entire body of the element, including the faces, are the same colour.

The construction defined in amended claim 1 has a major advantage over the prior art. As stated in paragraph 35 of the disclosure, the construction of puzzle cube 10 allows each of the cubic elements to be made of injection-molded plastic of a selected colour, and there is no need to apply stickers or plates to different faces of a different cubic element. Unlike the classic Rubik Cube, in which the exposed faces of a different cubic element must be different colours, the exposed faces of the claimed puzzle cube are all

the same colour, obviating the need to apply stickers or plates to different faces of a different cubic element, and the associated costs.

We submit that the cited prior art references, when considered by themselves or in combination with each other, do not teach or suggest a manipulable puzzle cube having the claimed combination of the two features defined in claim 1.

Li discloses a four layer version of the classic Rubik Cube. Li teaches in general terms, at column two, lines 59-60, that each side the four layer square cube can have a variety of colours or patterns. However, as noted by the Examiner Li does not teach that a given cubic element must be of the same colour on each of its exposed faces so as to form a particular pattern for the cube in its solved state.

While the Harbaugh, Miller, Paulos and Puzzles references disclose manipulable puzzles having various indicia on their faces, none of these references discloses the second key feature of claim 1, i.e. a cube having cubic elements of at least two different colours that are arranged to form a decorative pattern on each face of the cube, wherein the decorative pattern is formed by the at least two different colours. In contrast, Harbaugh discloses a cube having patterns formed by numbers and artwork, as opposed to colours, Miller discloses a cube having patterns formed by letters not colours, Paulos discloses a cube having a pattern formed by the faces of different characters.

The Examiner states that it would have been obvious to one of ordinary skill in the art to modify Li in view of the other prior art references to provide the puzzle cube of Li with the same colour on the exposed faces of each cubic element in order to provide a particular pattern for the solution of the puzzle. However, in order to combine the teachings of two prior art references, it is necessary to point something in the references themselves or the common general knowledge that would lead one skilled in the art to combine the teachings of the references to create the claimed invention. We submit that there is nothing in the cited references or the common general knowledge that would inspire one skilled in the art to combine the teachings of other prior art references with Li to create the claimed puzzle cube.

Moreover, even if a person skilled in the art were motivated to combine the cited references, the combination would not result in the claimed puzzle cube, because none of the prior art references discloses a puzzle cube having a pattern created by cubic elements of at least two different colours, wherein all portions, including the faces, of each cubic element are the same colour.

In response to the obviousness type double patenting rejection, we submit that the applicant's design patent U.S. No. D495,378 is not directed at protecting the invention claimed in the subject patent application. In particular, U.S. D495,378 is a design patent claiming the ornamental design for the puzzle cube shown in the figures, whereas the subject application is a utility patent application which claims a manipulable

puzzle cube comprising a plurality of cubic elements connected to a centrally positioned interior connecting element. The invention claimed in the design patent is limited to the visible surface configuration, whereas claim 1 includes interior structure that is not visible to the user. Once the design patent has expired, members of the public could conceivably use the claimed design on a cube having a different interior structure.

Furthermore, claim 1 defines a puzzle cube having a combination of the two key features discussed hereinabove. Once the applicant's design patent has expired, members of the public could make puzzle cubes embodying the two colour "Y" design shown therein without infringing the claims of the subject patent, by for example applying different coloured stickers to the face of a puzzle cube comprising cubic elements formed from a single colour.

Since the subject utility patent application is directed at a different invention, granting a patent on the subject utility patent application would not result in an improper extension of the "right to exclude" granted by the applicant's existing design patent.

We therefore request that the Examiner withdraw the obviousness type double patenting rejection.

We have amended claim 8 to delete the limitation added to claim 1. We have amended claim 13 to make it dependent on claim 1. We have amended claim 18 to change the claim dependency from claim 11 to claim 13.

We have added a new independent claim 19. Support for claim 19 can be found in paragraphs 31 and 35 at Figures 5-7, as it is apparent from the figures that the cubic elements can be integrally formed from a plastic material. We submit that claim 19 defines subject matter which is patentable for essentially the same reasons that the subject matter of claim 1 is patentable.

We have also added a new independent claim 20, which is similar in scope to claim 1 as filed, except that claim 20 defines a puzzle cube having a decorative pattern formed by the at least three colours on each surface of the cube. We submit that the cited art does not teach a puzzle cube having this type of three colour pattern. Furthermore, claim 20 is not obvious in view of the applicant's design patent since it claims a three colour pattern, whereas the design patent discloses a two colour pattern.

We submit that the above amendments and submissions overcome all of the Examiner's rejections, and that this application is now in condition for allowance.

Please charge any additional fees payable to our deposit account No. 02-2095.

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Reply to Office Action of 2 February, 2005*

Favorable action on this application is respectfully requested.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read 'TJ Sinnott', is written over a horizontal line.

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